Amendments to the Drawings

The attached nine (9) sheets of formal drawings include changes to FIGS. 23a, 23b, 32, 56, 57, 67, 68, 72, 73, 76, 81a, and 97 approved by the Examiner. These sheets replace the original sheets including the same figures.

Attachment: 9 Replacement Sheets

Remarks

A. Pending Claims

Claims 4369-4402 are currently pending. Claims 4380 and 4398 have been amended.

B. Request for Signed Information Disclosure Statements

Applicant respectfully requests signed, initialed copies of the enclosed unacknowledged electronic Information Disclosure Statements. The statements include: U.S. Patent Documents citation numbers 1-2 sent on and received by the PTO on June 23, 2003, as indicated on the enclosed acknowledgement receipt EFS ID 42310; U.S. Patent Documents citation numbers 1-17 sent on and received by the PTO on September 16, 2004, as indicated on the enclosed acknowledgement receipt EFS ID 68647; and U.S. Patent Documents citation numbers 1-6 sent on and received by the PTO on November 1, 2004, as indicated on the enclosed acknowledgement receipt EFS ID 71581.

C. Submission of Replacement Sheets

In the Office Action mailed December 21, 2004, the Examiner indicated approval of the proposed drawing corrections mailed on February 13, 2002. Applicant submits the formal drawings approved by the Examiner (9 sheets of drawings including FIGS. 23a, 23b, 32, 56, 57, 67, 68, 72, 73, 76, 81a, and 97) as an attachment following page 13 of this paper.

D. The Claims Are Neither Anticipated By, Nor Obvious Over Lindquist Pursuant To 35 U.S.C. §102(b) or 35 U.S.C. §103(a), Respectively

Claims 4369-4402 were rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 3,892,270 to Lindquist (hereinafter "Lindquist"). Applicant respectfully disagrees with these rejections.

The standard for "anticipation" is one of fairly strict identity. To anticipate a claim of a patent, a single prior source must contain all the claimed essential elements. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 U.S.P.Q.81, 91 (Fed. Cir. 1986); *In re Donahue*, 766 F.2d 531,226 U.S.P.Q. 619,621 (Fed. Cir. 1985).

In order to reject a claim as obvious, the Examiner has the burden of establishing a *prima facie* case of obviousness. *In re Warner et al.*, 379 F.2d 1011, 154 U.S.P.Q. 173, 177-178 (C.C.P.A. 1967). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP § 2143.03.

The Office Action states:

> Lindquist...teaches recovering a gaseous product gas containing hydrocarbon values from a hydrocarbon-containing formation (column 1, lines 6-18). Hydrocarbons can be recovered from heavy-oil fields by partial oxidation and thermal cracking of the hydrocarbons in situ (column 3, lines 6-8). The product gas is composed of various constituents including carbon monoxide, hydrogen, methane and C1 to C10 hydrocarbons, as well as carbon dioxide (column 3, lines 46-49). The product gas constituents may be optimized by controlling the ratio of oxidizing gas to steam (column 4, lines 3-4). The product reasonably appears to be either the same as or an obvious variation of the instantly claimed product because the product of Lindquist is also produced from a coal hydrocarbon formation and in a similar way as compared to the claimed product.
>
> In the event any difference can be shown for the product of claims 4369-4402, as opposed to the product taught by Lindquist, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of showing unexpected results.

Claim 4369 describes a combination of features including: "wherein greater than about 20% by weight of the condensable hydrocarbons comprises aromatic compounds."

Regarding the demonstration described beginning in column 5, Lindquist states: "Condensate sample yield analysis is shown in Table II." (Lindquist, col. 6, lines 60-61) The "Detailed Composition Summary" in Table II indicates that 0.25 volume percent of the condensate sample is made up of aromatics. Thus, Lindquist does not appear to teach or suggest an aromatics content that approaches 20% by weight of the condensable hydrocarbons. Applicant respectfully requests removal of the rejections of claims 4369 and the claims dependent thereon.

Claim 4386 describes a combination of features including: "a non-condensable component comprising H_2, wherein greater than about 15% by weight of the non-condensable component comprises H_2."

Regarding the demonstration described beginning in column 5, Lindquist states: "Periodic samples were taken of the gas and liquid products for later analysis.... A typical gas composition consisted of 7 percent methane, 1.7 percent ethane, 12 percent carbon monoxide, 2 percent hydrogen, with the balance carbon dioxide." (Lindquist, col. 6, lines 48-60) Thus, Lindquist does not appear to teach or suggest a hydrogen content that approaches 15% by weight of the non-condensable component. Furthermore, Lindquist states: "It is desirable to maximize the Btu value of the product gas. This is done by optimizing production of methane relative to carbon monoxide and hydrogen. In maximizing production of methane, the reactions are favored by lower temperatures and higher space rates (short residence time of the product gas in the high-temperature zone)." (Lindquist, col. 3, lines 52-58) Thus, Lindquist does not appear to teach or suggest increasing a relative amount of H_2 in the product gas. Applicant respectfully requests removal of the rejection of claim 4386 and the claims dependent thereon.

E. 35 U.S.C. §112 Rejections

Claims 4369-4402 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully disagrees with these rejections.

The Office Action states:

> The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
>
> To the extent it could be argued that the claimed composition is novel or unobvious, the claimed subject matter has not be[en] described in the specification in such a way as to enable one skilled in the art to make and/or use the invention, i.e., hydrocarbon formations differ in chemical composition and applicants have not identified the chemical characteristics of the hydrocarbon formation from which the claimed product is derived.

Applicant submits that suitable hydrocarbon formations are described at least from line 29 of page 51 through line 13 of page 56 of the Specification. Applicant respectfully requests removal of the rejection of claims 4369-4402.

F. Double Patenting Rejections

Claims 4369-4402 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4184-4224 and 4242-4280 of copending Application No. 09/841,127. Claims 4369-4402 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4429-4448 and 5396-5405 of copending Application No. 09/841,636. Claims 4369-4402 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4188-4284 of copending Application No. 09/841,310. Applicant does not believe that a terminal disclaimer is needed for the present application and the above-noted applications. Upon allowance of the claims but for the double patenting rejections, Applicant will provide arguments against the double patenting rejections and/or provide a terminal disclaimer.

G. Additional Comments

Favorable reconsideration is respectfully requested.

Applicant believes no fees are due in association with the filing of this document. If an extension of time is required, Applicant hereby requests the appropriate extension of time. If any fees are required, please appropriately charge those fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account Number 50-1505/5659-03500/EBM.

Respectfully submitted,

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